Value of Site lands, & the different buildings
erected thereon (the lands being valued
on an arbitrary basis of $40 per superficial
foot & the buildings at cost)

Mackman, John Cunningham

Dec 1916-June 1917

(36)

Value of Site lands, & the different buildings erected thereon (the lands being valued on an arbitary basis of $40 per superficial foot and the buildings at cost)

$, $1,000,000

717

DEPARTMENT OF PHYSICS.

Toronto, Oct. 26, 16

President Falconer,

University of Toronto.

Dear President Falconer:

In reply to your note regarding information asked for by Professor Mavor for the use of the Dominions Royal Commission I beg to reply that previous to the war the staff was adequate for the work in Physics in the University of Toronto placed under my direction. The number of students in attendance in the classes in Physics for five years before the war is as follows:

Year	Lectures	Laboratory.
1909-10	641	428
1910-11	630	466
1911-12	598	548
1912-13	600	547
1913-14	643	596

In regard to the matter of research the income was practically sufficient to meet all demands in the way of apparatus and equipment generally for research work. Up till this year there was no income available for research fellowships, but a Fellowship of $500 has been established this year in connection with the Department of Physics. What is now required in the Department of Physics to enable us to engage in research work is income sufficient to provide for a number of Fellowships of $500 each, say five of these, and also to provide for research apparatus which would enable these men to carry on their researches. What would be an admirable arrangement would be to have an endowment for research attached to the Department of Physics, of about $100,000. Some of the Physical Laboratories in the United States have such an endowment.

McLennan, John Cunningham

Oct 1916-June 1917

If we had such in Toronto it would furnish us with about $5000 a year, and with this sum we could provide the Fellowships mentioned above and also have a balance to spend on research apparatus. As the post-graduate work develops we should also in my opinion increase our staff. This would enable our instructors to specialise more, and so provide intensive work in a number of the departments of Physics as these are developed.

I might also add that in my judgment there should be attached to the Physical Laboratory an Optometrical Department and a Radiological Department. In the former instruction and demonstrations could be given to men who desire to make a living out of the sale of spectacles, eye-glasses, opera-glasses, etc. It would also enable us to give special instruction in this matter to medical students. A Radiological Department attached to the laboratory would also enable us to give advanced and postgraduate instruction to medical men and medical students in their higher years. The subjects dealt with in this department would be the properties of Rontgen rays and radioactive substances, ultraviolet light and radiations generally. Measurements on these could be made and instruction given in the methods of applying these different types of radiations in practice.

At present all students in the University in Physics receive their instruction under my direction except the students in Engineering. In my opinion the Engineering students should also come to the Physical Laboratory for their instruction. At present they receive it in connection with the different departments in the Faculty of Applied Science.

(Signed) J. C. McLennan.

University of Toronto
TORONTO, CANADA

DEPARTMENT OF PHYSICS

Toronto, Oct 26, 1916.

President Falconer,

University of Toronto

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University of Toronto
TORONTO, CANADA

DEPARTMENT OF PHYSICS

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I have the honour to be,

Yours faithfully,

J. C. McLennan

UNIVERSITY OF TORONTO.

Total Registration of Students:

1909-10	1910-11	1911-12	1912-13	1913-14
4044	4122	4136	4141	4234

In 1913-14 distributed as follows:

Faculty of Arts	2574
Faculty of Medicine	623
Faculty of Applied Science	627
Faculty of Household Science	91
Faculty of Education	321
Faculty of Forestry	51
Registered in two Faculties	52

Instructors in University and University College:

1909-10	1910-11	1911-12	1912-13	1913-14
385	368	383	386	401

September 1916 On active service:

Staff--	Officers 86	(69 counted as graduates)	17
	Ranks 9	(2 " " ")	7
Graduates-	Officers		1368
	Ranks		368
Undergraduates-	Officers		557
	Ranks		711
Y. M. C. A. --	Graduates		11
	Undergraduates		2
			3041

Fallen 113

UNIVERSITY OF TORONTO.

Value of Site lands, and the different buildings erected thereon (the lands being valued on an arbitrary basis of 40¢ per superficial foot and the buildings at cost)

Lands	$1,208,036.	
Buildings	3,380,616	
		$4,588,652.
Valuation (estimated) of Library		213,385.
Valuation of University's investment in Royal Ontario Museum		251,003
Valuation of Convocation Hall Organ		19,603.
Departmental Equipment apparatus, furnishings, etc.		286,139.
Central Power Plant		397,898.
Other Items		24,070
		$5,780,750.
Lands under Lease etc. Valued on basis of revenue produced		639,218.
Investments and Cash		480,408.
		$6,900,376

Revenue for year 1915-16 was	$864,678.	
Expenditure " "	920,167.	
Deficit met by Government	$55,489.	

UNIVERSITY OF TORONTO.

Before the outbreak of war the University was gradually increasing its staff in all the departments, though relatively to other Universities of its size the staff was small.

The development of research and postgraduate work was putting such heavy demands upon the staff that with the burden of teaching the students there was constant pressure for additions.

The amount of income necessary for research was quite too small as will be seen by comparing the total income of this University with Universities of its size and grade in the United States, for example Wisconsin, Illinois, Michigan and California. Where our cost per students, exclusive of capital charges and buildings, was $227, the American Universities on the same basis run from $250 to over $300, and in the English Provincial Universities even a good deal beyond that figure. The hope of the University was that as soon as the requirements for teaching were reasonably met, additions would be made for purposes of research.

The most pressing needs in the scientific departments in the way of equipment are:

A new building for Electrical Engineering and Strength of Materials Laboratory.

A Ceramics Laboratory and in connection with that staff for teaching Ceramics on a large scale.

An addition to the present laboratories for Applied Chemistry in order that experimental chemistry in its application to industry may be carried out on a larger scale.

The amount of income especially applicable for Fellowships is

Personal Friend

Bowland Hous
Midlothian
Scotland.
July 22nd 1916.

Dear Rendell Falconer.

No doubt you received the Marconi Cable which I sent you asking you to join with the Board in thanking Dr. Cummings for the X ray outfit (value about 200£) which he donated just before I left the Royal Infirmary. I told him one day how pleased I was for such an equipment and was delighted when he said he would keep it to let me know his equipment which he was replacing by a type of later design.

I am very glad that you and the Board have taken the action you did in regard to Dr Salterly. His recommendation that I have ever made to you has been given as much consideration as that once and now that it is done I feel satisfied that it was the correct thing to do. The complimentary letter which permanent appointments to the Staff are now receiving by recipients is very paralyzing to an Administrator as you

must flew home observed. and the difficult flew brise in ones judgments above so alleviation conditions. If one keeps one mentally in mind the best interests of the community and does not allow personal predilections to influence his conclusions there seems much room.

I am enclosing a letter from Miss Reed to me which bears out the solution as I indicate I have gone over the telephone. The Alexandria Municipal Airport is not a good one. The catalogue of pamphlets and the preparation of laboratory instructions must be done in the summer. There is no time for it in the winter. If it is not done by Miss Reed, there will either have to be obtained from class assistants to do it. Miss Allen an undergraduate class assistant or will add duties to the present holders of assistantships. In any set class assistants ~~this~~ now become they hope to do some research of their own. and as you know we have flew lately had to come over here for them. If I include the above work in their duties

should be more difficult than ever to get them. I have asked both Miss Reed and Dr Salisbury to make an appointment with you to talk over the situation. Miss Reed is more than a clerical assistant. She is an honour graduate in Mathematics and Physics and her attainments in this line make it possible to hand work over to her which could not be done by an ordinary clerical assistant. With such a one I should be necessary for each member of the staff to take up much time in supervising the preparation of statistical sheets, reports, tables & the making &c.

As my staff is arranged I have endeavored to get the best out of each member. Duties are given to those best suited to carry them out, and keep all work very hand. I should be glad if you could shortly take time to know what each member of my staff does and I think you would be surprised to see how the work is done as efficiently as there is to otherwise.

Since coming over I have been very busy working up for you for the experiments for which I did before

I came away. There were finished on Monday and Mrs McKenzie and I came North for a little change. At intervals Opportunity was given me when in Edmonton to be present at some interesting gatherings. The Board of Invention & Research I am glad to say has expressed itself very pleased with the war work we were able to do for them. Mr Reid my man who is at Camden has invented a most useful apparatus for affording communication between the front line trenches and the artillery at the rear. When communication (wires etc) are cut. The War Office has adopted it and has been putting operators and wireless sets in all their planes & our poor fellows from being killed by our own guns. Blackburn is now at the front doing good work in a place where his training with us is proving most useful.

I was down at Deseronto a few days ago. and saw Cameron. Fox and the others. Cameron has got the place in splendid running order and can now go back home with the feeling that he "Hero" has been very useful

I cannot speak too highly of the way Dr
as quarters work is looking after things
at Orpington. The heating plant, the
kitchens & commissariat generally are
exceedingly well ordered. Everyone he
looks so manly and has gained much
confidence in himself.

The ladies of the Canadian
Club of Toronto asked me to give them a talk
on aircraft when I got back and so I went
to Peterborough to see the Curtiss factory.
It is marvellous. There are acres and acres
of building in which aeroplanes are being
made. Besides they have a Bureau of Inventions
& Research adding experimenters and designers
I could not help feeling that if Edison
were there he would be of much greater use
than he would be at Orpington acting as
X ray man. There the work is very well ordered
Dr can look after the ops here quite well.
Their offices while tolerable good for
surgical work is not satisfactory for medical
& examination work. They need the kind of
offices that they have in the General
Hospital at home. They offices they have
is old fashioned and if they had their
modern X ray workers are [illegible]

of the Government were advised of this they might be glad. In the meantime they have put into their equipment they could have got a splendid modern up to date equipment instead of an old out of date one. Dr Clarke could advise. Herbert can easily get in the [illegible]

Sir Geo. Foster Sir Wm Peterson and I had a conference with Sir Wm Kennedy Canadian Commissioner in London with the result that I have agreed to try to get all interests in Canada together first before coming up in any way with a similar body over here. I also had a conference with Prof. Dunstan at the Imperial Institute and also one with Mr McDermid at the Institute. I wrote and had all my with the result that I now have all the data being done and in prospect over there. I think Sir George is going ahead with a Canadian Commission as soon as he returns. I urged him to make Mackenzie Dalhousie Lee of the Commission He agreed to this as he personally would prefer for the post if he could be induced to take it.

I hope you will pardon this long letter but I wanted you to know and

Dear Lorenzo — Yes, I do think it worthwhile coming over here even if we only keep in touch with things. We are likely to have great changes in our relations with the old land and to be closer the interests of both to the movements in both lands. We shall I think.

Hope you and Mrs Valerio and the little chaps keep well. You have had a long and arduous session and I hope you get a good rest.

Mrs McLennan joins me in kindest regards to Mrs Valerio and yourself.

Yours sincerely
A McLennan

Aug 9 1896.

Dear President Palmer

The announcement in regard to graduate Fellowships has just reached me and I congratulate you on the number of Fellowships you have already secured.

The statement does not I think indicate when applications are to be in but I take it that awards will not be made before

be left Bowland for a couple of weeks away from everybody. The quiet spot is charming.

Yours very sincerely

J. McKeen

I shall be back about Sept 28th as I sail on the New Amsterdam. Sept 19th.

If a summary decision should be necessary I should be obliged if you would refer such matters to Dr Bu[illegible] whom I shall specially consult on post graduate matters. I have written to him to keep me informed regarding applications & in case of necessity I could always communicate with him by cable. My cable address is Bowland Cloverford.

I hope that we shall be fortunate enough to secure a Fellow. Doubtless all depends who after them but I think you know that my Department is not backward in Canada concerning the work we have done.

It looks as if a new Era is opening up for the University and I look forward to happier days ahead.

With McKinnon joins me in kindest regards to Journey and Mrs Flavelle

14c

October 18th, 1915

Professor Coleman,

Department of Physics.

Dear Professor Coleman:

I will bring up the case of Mrs. Richardson at the meeting of the Board on Thursday of next week, and have no doubt that the Board will deal as generously as possible with her.

With regard to the lamps, I have seen the Superintendent, and the case stands very much as I thought. By regulation he is responsible for the wiring of the building and the ordinary lighting, which as a rule means one lamp in each room. In all the laboratories where extra lighting is to be done, and of these as tells me there are several instances, the extra lamps are provided by the Director of the Laboratory.

He tells me, however, that he is able to secure these Tungsten lamps at a lower rate than the Director of the Laboratory can instruct as he orders a large supply. There is, I think, a difference of something like eight cents a lamp.

Yours sincerely,

President.

University of Toronto
TORONTO, CANADA

DEPARTMENT OF PHYSICS

Toronto, Oct 21, 1916.

President Falconer,

University of Toronto.

Dear President Falconer,

I duly received your letter of October 18, and am glad you are going to try to do something for Mrs Richardson.

In regard to the matter of the lamps I am not a bit particular which way the Board of Governors desires to have the matter handled, but when the lighting of the building was gone into by the experts who planned the building it was decided that for a proper illumination of each half unit it would require five lamps. By this I mean the lighting of the room for ordinary purposes. Provision was made for the installation of additional drop lights for experimental purposes. That was another matter. Whoever has given you advice that as a rule one lamp in each room will suffice has given you wholly unreliable information. It is simply ridiculous. How much illumination do you think you would get in your own private room with one lamp? Of course there are lamps and lamps, but I take it you refer to the ordinary 16 c.p. lamp. In a matter of this kind I shall always be glad to give you the actual facts, and there is no

University of Toronto
TORONTO, CANADA

DEPARTMENT OF PHYSICS

one I take it, in a better position to do so. I need scarcely add that if proper illumination is not provided in the rooms accidents are sure to happen, and apparatus will be injured and destroyed which will necessitate an outlay far in excess of the small expenditure required for lamps. Under the circumstances I think it is only right that I should let you know this because I am sure you always want to know the actual situation.

Yours faithfully,

J. C. McLennan

January 19th, 1910

Professor J. C. Coleman,

Physics Department.

Dear Professor Coleman:

[illegible] your request for a transfer of [illegible] salary account [illegible] I [illegible] to [illegible]

[illegible] this [illegible] [illegible] basis last [illegible] to the effect that they must not be [illegible] [illegible] information for [illegible]

[illegible] to the effect that it had been [illegible] to the research work of advanced students in the Department and [illegible] [illegible]. I will see you about the matter during the course of next week.

Yours sincerely,

President.

January 12th, 1917

Professor [illegible],

[illegible]

My Professor [illegible]:

[illegible]

94

[illegible], 1917

[illegible]

[illegible]

Dear Professor [illegible]:

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

University of Toronto
TORONTO, CANADA

DEPARTMENT OF PHYSICS

95

Toronto, Feb 19, 1917.

President Falconer,

University of Toronto .

Dear President Falconer,

We have now made arrangements to carry on our lectures and some of the laborstory work, and shall be obliged if you will kindly have this announced in the daily papers if you think it advisable. At present we understand some of the students have left the city and this would be the best way to reach them.

Yours faithfully,

J. C. McLennan

c/o

February 22nd, 1917

Professor J. C. McLennan,

University of Toronto.

Dear Professor McLennan:

I have written to Mr. Smith of Winnipeg saying that they had better wait for some future occasion to have you address their Canadian Club.

I am sorry that I cannot be at your meeting to-morrow afternoon, but Wyatt and I are to be in Buffalo addressing the Alumni.

I will speak to Sir Edmund Walker and try to arrange an hour that will suit him and then will let you know.

With kind regards, I am,

Yours sincerely,

President.

University of Toronto
TORONTO, CANADA

DEPARTMENT OF PHYSICS

66

Toronto, March 22, 1917.

President Falconer,

University of Toronto.

Dear President Falconer,

When Mr. Lindsley left I put on Mr. Mezen to help us out on the glass-blowing , but I did not put anyone on to help me in my experimental work in his place, as I waited to see how things would turn out. I think now that Mr. Hamer can help me and I have asked him to be my laboratory assistant at the rate of $40.00 a month dating from the 15th of march. I should be very glad if you would kindly consent to this appointment and have the Board ratify it. There is plenty of money to pay for it out of the balance of Lindsley's salary without asking for an additional appropriation. In fact I shall have a balance of something like $15.00 or $20.00 amouth left.

Believe me,

Yours faithfully,

J. C. McLennan

52

April 14th, 1917

Professor J. C. McLennan,

Department of Physics.

Dear Professor McLennan:

I understand that the Board of Governors passed a formal vote of thanks to Dr. Cummings for his gift of an X-ray outfit to the Physical Laboratory, in addition to a personal letter from myself. When we are next making an acknowledgment of gifts of course it would be only proper that this valuable contribution to the efficiency of the University should be mentioned.

Yours sincerely,

President.

51

April 18th, 1917

Professor J. C. McLennan,

Physics Building.

Dear Professor McLennan:

I have your letter recommending that a course of 25 lectures be given to the Veterinary College students, the lectures to be taken in conjunction with the medical students, and that a fee of $5.00 be charges with a minimum of $200.00. I will take this matter up with Principal Grange. I note also your recommendation in case of laboratory work being provided.

Yours sincerely,

President.

28

June 1st, 1917

Professor J. C. McLennan,

Board of Inventions and Research,

The Admiralty,

Victory House, Cockspur Street, London, England.

Dear Professor McLennan:

I have had sent to you a parcel containing a Signalling Disc invented by one of our graduates who is now at the front, Sergeant Allan. It has been submitted to the authorities at Ottawa and they say that it has been examined and tested with satisfactory results. However, Sergeant Allan would like to have the invention submitted to the Munitions Inventions Board, and I knew of no better way to do it than to have it expressed to your care. You will know what steps to take with regard to it.

I hope that you have had a pleasant voyage and that Mrs. McLennan and yourself are well. I will write to you after a while.

Yours sincerely,

President.